

Sandoval Zinc

10/19/09

12:45 pm

~70° Breezy

Standing water on portions of the site

Cody Alger, Ken Corbill, Tony Wasielewski + myself

X301

~~X301~~ - 1330 - location is slightly NE of the entrance gate - SW corner of Slag  
 material is slightly gray w/ rocks - zinc oxide (sandy) - ground up  
 XRF #2 cinders

X301 was collected at the surface (0-4 in)

picture taken of surface water to the east + from the north

picture taken of X301 to the SW

XRF #3 was taken near the SE corner of the property from Slag/waste pile

X302 was collected from the surface from a dark gray

Sandy silt material (0-4 inches) very fine cinder slag material

T101 was collected from the same location

Both samples were collected @ 1400

pic taken to the north

Sandy silt material is probably zinc oxide

XRF 4 - in drainage ditch on east side of site

XRF 5 - east of fence in ditch near creek

XRF 6 - east of fence confluence of ditch + creek

XRF 7 - near the middle pipe on the old furnace - north side

XRF 8 - in the debris in the old furnace

XRF 9 - NE corner of site

X302 was collected from the NE corner of site from a black cinder material from the surface. Sample time was 1430. (0-4in)  
collected from NE corner of slag pile  
picture taken to the south. Old furnace in the background  
picture

15 ft }  
E from }  
XRF 12 }  
NW corner  
XRF 10  
XRF 11

XRF 12 - NW corner of site from an area of reddish brown gritty cinder material  
X304 was collected at the NW corner of the site  
from the surface from a reddish brown sandy material  
picture taken towards the east - bldg footings in background  
This area appeared to be the NW corner of the slag pile, much  
rusty material in this area

XRF 13  
XRF 14  
XRF 15  
XRF 16  
XRF 17  
XRF 18  
XRF 19

T102 was collected @ 1500 from a black cinder sandy material

pic taken to the NE

1530 - X202 - collected @ 8 inches from a brown sediment  
mostly silt - this was located at the ~~tail~~ <sup>tail</sup> system  
drainage in the area where the ditch splits.  
XRF #23 pb 681 Zn 5489 collected from a depth  
of - 8 inches

@ confluence of ditch + Prairie Creek  
XRF 24 @ 3 inches pb @ 290 Zn 3883  
XRF 25 @ 6 inches pb @ 228 Zn 3436  
26 @ 1 ft pb 272 Zn 1914  
27 @ 1.2 ft pb 104 Zn 1407

X201 collected at 3 inches from a brown silt at the  
confluence of ditch + creek @ 1600  
picture taken to the S towards the creek

XRF 20 pb 251 @ 3 inches

10/20/09 Sandoval Zinc

0830 - arrived on site

cool breezy - began day by organizing

XRF 3 - 6 inches

XRF 4 - 8 inches

X203 was collected from approximate middle of wetland area

Sample consisted of some gritty but mostly silt w/ some clay - slight grit, brown in color, lighter shade of brown from 8 inches



X203 was collected @ 0900

photo taken to the east, phragmites everywhere

near the Cottonwood

XRF 8 - surface - 264 pb

5 - 4 inches

6 - 7 inches

7 - 12 inches 811 Pb sandy silty sand

grit material @ 14 to 17 feet with auger - noticeable rocks  
sandy material + then silt below

14 to 22 inches - 2nd auger

XRF 9 - sandy

10 - sandy

11 - 22 inches more silty less sand

X204 + X205 dup - 12-16 inches sample collected

sample homogenized - consisted of a silty sandy light brown in color with small pebbles

picture taken to the west of east

XRF 12 - 3 inches

XRF 13 - 8 inches - 1488

XRF 14 - 12 inches

15 - 14 inches

16 - 18 inches

XRF 17 - 20 inches

18-24 inch ND

@ 12 inches grithiness

XRF 19 - 8-10 inches 1500 pb

X 206 was collected @ 1000 from a brown silt w/ very little grit from a depth of 8-10 inches collected from the wetland area in the phragmites.

picture taken to the east.

Location is near the four wheeler path way

XRF 20 -

XRF 26 - east side of 4-wheeler path 4 inches  
XRF 27 - " " 6 inches

X207 collected from the east side of the 4 wheeler path  
collected from a brown silt w/ some grit @ 103  
@ 6 inches  
picture taken to the SE

Path in is near the gobs of mortar in the field.  
Surface water is definitely flowing here.

XRF 28 - 4 inches

XRF 29 - 8 inches

XRF 30 - 12 inches

XRF 31 - 14 inches

lot of phag. roots sandy

- silty sand w/ brown color

X208 Sample collected from 8 inches from a silty sand  
@ 1100

pic taken to the east.

entrance is near the old fence posts just SE of pond

Location is deep in the phragmites

XRF 32 - 3 inches

33 - 10 inches

34 - 12 inches

X 209 was collected from 10-12 inches from a gritty silt  
brown in color @ 1145 collected from one area of  
running surface water.  
picture taken to the NE.

XRF

inlet/outlet on west side of pond 0-4 inches X 210 consisted  
of a brown silt w gritty gravel @ 1230  
XRF 43 210  
44 439  
45 30

pic taken to the east

Runoff from site - east side  
- 48 - Surf. 46  
- 49 - 4 in 49  
XRF50 - 8 in 50

X211 was collected from a brown silt w/ gritty material (circled) from 0-3 inches. from the confluence of the runoff ditch to the wetland located between the site & the pond.  
2 pics taken

NE corner of site - confluence of drainage from N side of site to the wetland area near the RR track culvert

XRF 51

XRF 52

X212 was collected from 0-3 inches from a gritty brown silt @ 1300

Drainage area from the west on N side of RR tracks

XRF 57 - surf.

XRF 58 - 394 - 4 in

X213 collected from the 0-3 inch range from a light brown  
silt w/ some grit. @ 1315

possible influences could be fallout from stacks

possible fill area

XRF 58 - pb 289 surface - edge of brush near deer stand

XRF 60 - pb 48 surface - X214 collected from a silty brown  
without grit. @ 1330 collected from 0-2 inches  
pic taken to the south  
0.4  
111

XRF 61 pb 50 surface

X215 collected from creek from a brown silt @ 1345  
background @ 0-3 inches  
pic taken to the SW

X201	- XRF 63 -	pb	485
X202	- XRF 64 -	pb	885
X203	- XRF 65 -	pb	2096
X204	XRF 66 -	pb	980
X205	XRF 67 -	pb	1089
X206	XRF 68 -	pb	612
X207	XRF 103	pb	1760
208	XRF 104	pb	1111
209	XRF 105	pb	1413
210	XRF 106	pb	960
211	XRF 107	pb	1695
212	XRF 108	pb	1600
213	XRF 109	pb	394
214	XRF 110	pb	96
215	XRF 111	pb	74

Richard Albers  
202 E. Commercial

SW corner of house - surface XRF-69 pb 459  
4in XRF-70 pb 530  
6in XRF-71 pb 213

SW of house, near the propane tank

XRF-72 - surface - pb 1127 topsoil black - grit/rocks  
XRF-73 - 4in - pb 611 ~ Δ to silty brown  
XRF-74 - 6in - pb 2338

SW of house

XRF-75 - surface 2005 pb  
76 - 4in - 7341 pb  
77 - 6in - 551 pb

X101 was collected from the SW corner of the property from  
a black cindery material from a depth of 4 inches.  
picture taken towards the NE

David Sinclair

211 E. Commercial

Front yard - SW corner

XRF 78 - Surface pb 319 ppm

XRF 79 - 4 in - pb 2506 ppm Zn 9816

XRF 80 - 6 in pb 1998 ppm

Sandy brown  
loam

NW corner of yard

XRF 81 - Surface 112 ppm Pb dark brown loam

XRF 82 - 4 inches - 127 ppm

XRF 83 - 6 inches - 183 ppm

NE corner of yard, just off of old alleyway in the back

XRF 84 - Surface 177 ppm pb. loam w/ chat rock (rock chips)

XRF 85 - 4 inches 375 ppm Pb gravel w/ loam

XRF 86 6 inches 316 Pb

X 102 @ 1600 from 4 inches collected at the SW corner  
of the house. Sample consisted of a sandy brown loam.

Sandoval H.S.

Front - in front of parking lot between lot + W Missouri

XRF 87 - surface - pb 41	Brown loam
88 - 4 in - pb 41	"
89 - 6 in - 39	"

SW side of front between lot + street

XRF 90 - Surf. - 46
XRF 91 - 4 in - 43

SW corner of gym

XRF 92 - 16 ppm Pb - surface
XRF 93 - 4 in BND

N of school in the old football field - NW of Baseball field

XRF 94 - 118 ppm Pb - surface
XRF 95 - 406 ppm Pb - 4 in
XRF 96 6 in - 218

X103 was collected @ 1700 from 4 inches from a brown loam, just under peat type layer. picture taken to the South

Sandoval Elementary School  
300 Perry

XRF 97 - 210 ppm Pb - surface

NE of playground

XRF 98 - 4 inches - 257 ppm

XRF 99 - 6 inches - 252 ppm

Just behind tan building

XRF 100 - 322 ppm Pb - surface

XRF 101 - 4 inches 221 ppm Pb - fill material - glass, gravel

XRF 102 - 6 inches 579 ppm

X104 was collected from 6 inches from a brown lacquer  
fill material - glass + cinders @ 1730

pic taken to the <sup>SE</sup>~~SW~~ towards the playground

Oct 21, 2009

Arrived onsite + met Stan

... Showed me around town to the public owned property

Began at city owned property - just behind + across the street from the old  
Theatre - SW of the T of Commercial + Main.

XRF 2 - Surface - Pb - ND.

XRF 3 - 4 inches - Pb - 37 ppm

XRF 4 - 6 inches - Pb - 30 ppm

Move to the west - NE of the water tower

XRF 5 - 313 ppm - surface brown silty loam

XRF 6 - 4 in - 353 ppm Pb

XRF ~~8~~<sup>7</sup> - 6 in - Pb - 1771 ppm - gravelly fill material

Near 18 Pike St.

XRF 8 - 235 ppm - Pb Brown silty loam

XRF 9 - Pb - 402 ppm Brown silty loam

XRF 10 - Pb - 1130 - gravelly fill material

X105 is collected at the NE of the water tower from a depth of 6 inches  
from a brown silty loam interspersed with gravelly fill material  
Sample collected @ 0930 built in 1980

XRF 11 @ 6 inches 671 ppm

picture taken towards the SW

Perry + Broadway - public housing - probably built in the ~~60s~~ / 1965  
- site looks

XRF 12 - 87 ppm - surface front of 113 Broadway

XRF 13 - 4 inches - 116 ppm

XRF 14 - 6 inches - 122 ppm

Near the NE corner of site - near the sidewalk -

XRF 15 - Surface - 170 ppm

XRF 17 - 4 in - 236 ppm

XRF 18 - 6 in - 157 ppm

South area of site SW corner of site - near the light pole

XRF 19 - 333 surface

XRF 20 - 4 in - 580

XRF 21 - 6 in - 1049

X106 was collected from this area @ a depth of 6 inches. Collected from a dark brown silty loam w/ some grit. Collected @ 1000 picture taken towards the east.

Oak St. - Built in 1982.

265

NW corner of site - near the oak tree  
XRF 22 - surface - Pb-ND - Sandy soil  
XRF 23 - 4in - Sandy soil - Pb ND  
XRF 24 - 6in - tan sandy soil - Pb 15

Near the SW corner of site - 7 ft from telephone pole - <sup>Road</sup> just east of ditch

XRF 25 - surf - 100 ppm Brown cindery mix  
XRF 26 - 4in - 228 ppm Brown silty loam w/ cindery mix  
XRF 27 - 6in - 614 ppm

East side of housing - 3 ft from fence  
very sandy - soft

XRF 28 - 37 ppm Pb - surface  
XRF 29 - 81 ppm Pb - 4in Sandy loam  
XRF 30 - 80 ppm - Pb - 6in Sandy

X107 ~~at~~ 1030 - brown cindery mix from 6 inches  
pic to the north

Housing on Mulberry St. - back alleyway  
XRF 31 - Pb - 58 ppm - brown loam  
XRF 32 - Pb - ND 4in - brown clay  
XRF 33 - 6inches brown clay 37 ppm

Just west of 2 story housing - brown loam

XRF 34 - 37 ppm - surface

XRF 35 - 4in - 69 ppm

XRF 36 - 6in - 71 ppm

SW corner of block

XRF 37 - 325 ppm - surface

XRF 38 - 4in - 345

XRF 39 - 6in - 540 cinders + brown loam

X108 from 6inches from a brown loam cinder material (2)  
1100

pic taken to the NE.

SE corner of Housing on Mulberry St.

XRF 41 - 252 - S

XRF 42 - 247 - brown silty loam 4inches

XRF 43 - 349 ppm 6inches

Middle of Mulberry St. Housing - in the front

XRF 44 - surf 232 ppm

XRF 45 - 4in - 303

XRF 46 - 6in - 284

NE corner of Housing on Mulberry St.

- XRF 47 - 235 ppm - surf.
- XRF 48 - 4 in. - 171 ppm
- XRF 49 - 6 in. - 211 ppm

X109 was collected from the SE corner of the site @ 6 inches from a light brown silty loam.

pic. taken to the NW

Cleta Carter

205 S. Mulberry

front yard - south side between bushes + sidewalk

- XRF 52 - surface - brown silty loam - 190 ppm Pb
- XRF 53 - 4 in - 242 ppm
- XRF 54 - 6 in - 276 ppm

N side of house

- XRF 55 - surface - 77 ppm
- XRF 56 - 4 in - 175 ppm
- XRF 57 - 6 in - 116 ppm

X110 was collected from 4-6 inches from the front of the yard from a brown silty loam. Pic taken to the west. @ 1245

Public Park - rt. field of ball diamond.

~~XRF 58 - Surf.~~  
10/21/01  
brown silty loam.

59 - 4in Surf. 143 ppm  
XRF 60 - 4in - Pb - 163 ppm  
XRF 61 - 6in. - Pb - 189 ppm

Outpost Center - left field - beyond light poles

XRF 62 - Surf - 116 ppm  
XRF 63 - 4in - light brown clay - 162 with some gravel  
XRF 64 - 6in - " w/ some gravel Pb 143 ppm

XRF 65 - 289 ppm - down near the South portion of Park West of  
the Veterans memorial

XRF 66 - 4in - light brown silty loam 297 ppm  
XRF 67 - 6in - becoming a lighter tan clay Pb 141.

XIII was collected from 4-6 inches of a brown silty loam from  
the right field area @ 1315. Pic taken to the South

Mary Deadmond  
212 S. Mulberry St. near sidewalk + walkway

XRF 68 - 619 - brown loam w/ cinders  
XRF 69 - 1602 - "  
XRF 70 - 1357

She owns the next lot - front yard near old walkway

XRF 71 - Surface 140  
XRF 72 - 4in - 423  
XRF 73 - 6in - 349

Back part of lot

XRF 74 - Surf - 87

XRF 75 - 95

XRF 76 - 112

X112 was collected @ 1345 from the front yard from a depth of inches  
from a brown silty loam w/ cinders  
pic taken to the east

Daniel Burns

465 E. Arizona

XRF 77 - Surf - 302 ppm

XRF 78 - 4 in - 462 ppm brown silty silt w/ cinders

XRF 79 - 6 in - 912

NE corner of property

XRF 80 - Surf - 100 ppm

XRF 81 - 4 in - 188 ppm

XRF 81 - 6 in - 213 ppm

NW corner of site

~~XRF 82~~ 211 - 145 ppm - surface

XRF 83 - " "

84 - 178 ppm 4 inches

85 - Battery Dead

X113 collected from 6 in - from a brown clay silt w/ cinders @ 1415  
from the front yard.  
pic taken to the N

David Hiltibidal 406 S. Clay - new home

XRF 86 ppm - Pb - ND surface

XRF 87 - Pb - <sup>XRF 25</sup> 38 ppm - 4 in

XRF 88 - 3F

Brown silty clay

NE corner of house -

XRF 89 - surface - 15 ppm - brown silty clay

XRF 90 - 4 in - 14 ppm

XRF 91 - 6 in - 14 ppm

east edge of property

X114 - 0-4 inches of a brown clay @  
1500

XRF 92 - Surf - 18 ppm

XRF 93 - 4 in - ND

XRF 94 - 6 in - 20 ppm

pic taken to the west.

Angela Duncan 401 S. Clay - runs a daycare

XRF 95 - surface - 233 ppm Pb Brown silty loam

XRF 96 - 4 in - 215 ppm Pb

XRF 97 - 6 in - 94 ppm

N side yard

XRF 98 - 34 ppm - surf.

XRF 99 - 30 ppm - 4 in

XRF 100 - 29 ppm - 6 in

~~X1~~ ~~X114~~ X115 was collected from the front yard from 0-4 inches from a  
brown silty clay. Collected @ 1515  
picture to the west

Edgar Parker

209 S. Clay

XRF 102 - 144 ppm

- NE corner of property

XRF 103 - 209 ppm

XRF 104 - 216 ppm

NW corner of property

XRF 105 - 138 ppm

Gardner area

XRF 108 - 99 ppm

XRF 106 - 115 ppm

XRF 109 - 116 ppm

XRF 107 - 123 ppm

XRF 110 - 110 ppm

X 116 collected @ 1600 from 4 to 6 inches from the NE corner of the property - brown silty clay  
pic taken <sup>to</sup> from the west

Larry Groff 201 S. Clay

XRF 111 - surface 2251 ppm - brown silty clay w/ cinders

XRF 112 - 4 in - 1544 ppm

XRF 113 - 6 in - 985 ppm

X 117 collected from the surface of a brown silty clay w/ cinders @ 1615

pic taken to the SW.

XRF 114 - Surf. - reddish brown cindery mix 5565

XRF 115 - 4 in - 29,226 Zn 55026

XRF 116 - 6 in - 30,464 Pb

XRF 117 8 in - clay @ 7 inches 646 ppm Pb

X 118 collected @ 6 inches from a reddish brown cindery mix @ 1630  
pic taken to the east.

John Rohner

XRF 118 - Surf. Pb ND

XRF 119 - 4 in - 26

XRF 120 - 6 in - 19

509 S. Clay

X 119 + X 120 - 4-6 in - from a brown silty clay @ 164

NW corner XRF 121 - 39 ppm

XRF 122 - 22 ppm 4 in

XRF 123 - 6 in - 19 ppm

Little Start's Day Care 202 Nmie Street

XRF 124 - 44 ppm - Surf.

XRF 125 - 90 ppm - 4in

XRF 126 - 95 ppm 6in

X121 collected from 4 in from a brown silt w/ clay @ 1730

pic taken to the SW

next door (also Daycare)

XRF 127 - Surface - 147 ppm

XRF 128 - 4in - clay 234 ppm

XRF 129 - 6in - 248 ppm

David Hawkes 113 Railroad St. - VW repair shop - old theatre

XRF 131 - Surface - 406 ppm - cinder fill material

XRF 132 - 4in - 502 ppm

XRF 133 - 6in - 776 ppm

X122 collected @ 6 inches from brown cinder fill @ 1800

X123 dup

10/22

Donna Hoffman

701 N. Vine

Front yard SE corner  
XRF 2 - 42 ppm surf.  
XRF 3 - 4in - 59 ppm  
XRF 4 - 6in - 29 ppm

SW corner - cinders present <sup>all ves</sup> no soil  
XRF 5 - 3621 ppm - surface mass p  
brown cindery silty clay  
@ about 4in to the brown silty cl  
XRF 6 - 349 ppm 4in  
XRF 7 - 6in - 69 ppm

X124 collected from 0-2 inches from a brown silty clay mix @ 0845 from a depth  
0-2 inches from the SW corner  
pic taken to the east

306 Nebraska - NE corner of yard

XRF 8 - surface - 84 ppm  
XRF 9 - 4in - 144 ppm  
XRF 10 - 6in - 138 ppm

SE corner of garage

XRF 11 - 606 ppm - surface <sup>brown cindery</sup>  
XRF 12 - 323 ppm - 4in  
XRF 13 - 387 ppm - 6in

X125 collected from surface of a brown cindery silty clay @ 0900

pic taken to the north

Julie Copple

609 Fawn Front yard

XRF 14 - Surf. - 18 ppm  
XRF 15 - 4in - 48 ppm  
XRF 16 - 6in - 22 ppm

XRF 17 - Surf. - 20 ppm  
XRF 18 - 4in - 35 ppm  
XRF 19 - 6in - 32 ppm

X126 - near the SW cor, near lot - collected from the surface @ 0930  
from a dark brown silty clay

323 S. Oak

XRF20 - Surface - 61 ppm

brown silty  
black clay w/ debris

XRF21 - 4 in - 54 ppm

XRF22 - 6 in - 30 ppm

Back corner - by the old mortar square

XRF23 - Surf - 54

XRF24 - 4 in - 134 ppm

XRF25 - 6 in - 238 ppm

X127 - 6 inches from a brown silty clay @ 1000